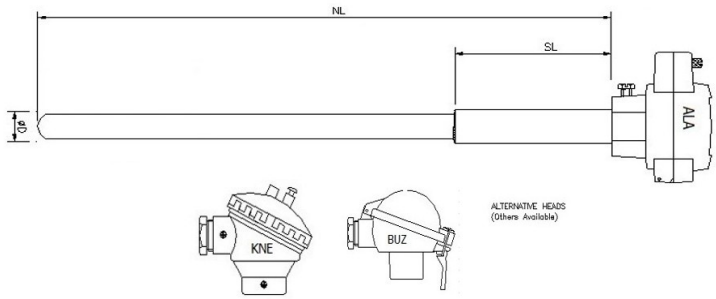
Rare Metal Thermocouples RMT STYLE (UK Manufactured)



Labfacility are the UK's leading manufacturer of Temperature Sensors, Thermocouple Connectors and associated Temperature Instrumentation and stockings of Thermocouple Cables. The Company has been trading since 1971 and is ISO9001 accredited.

LABFACILITY
TEMPERATURE & PROCESS TECHNOLOGY

Datasheet

Rare metal thermocouple R , S and B assemblies. Rare metal thermocouples are made from conductors containing platinum and rhodium alloys and are suited for measuring high temperatures up to 1700°C.

This product has to be ordered through our 'Custom Build' system. Click below to submit your requirements for a quotation.

Application Notes:

High temperature platinum temperature sensor

Designed specifically for your application / environment

Will withstand tough industrial use

Overview

Type
Rare Metal Thermocouple Temp Sensor to High Temp

Temp Range
0 to 1700°C

Common Sensor Types
R, S, B

Common Sheath Size (mm)
6.0, 8.0, 10.0, 12.0, 13.0, 15.0, 17.0, 20.0, 25.0, 28.0

Common Element Diameters (mm)

0.35, 0.45, 0.5

Shank Material
310SS, 466SS, INCONEL 600

Head Options
ALA, KNE (IP65), BUZ

Thermocouple Type R and Type S Technical Details

Thermocouple Type B Technical Details

Type R and S thermocouples are the most popular rare metal thermocouple types. They are very similar in conductor construction. The main difference is that Type R is more popular in th UK whereas Type S is more popular in Europe. As the cost of Platinum and Rhodium is high in comparison to base metal thermocouples, Type R & Type S wire can be recovered and recycled from failed thermocouples. The negative leg on a Type R or S thermocouple is pure platinum and the positive leg is platinum / rhodium. Type B has a very high maximum temperature. For short periods it can be used to measure temperatures up to 1850°C, with up to 1700°C being measured under continuous operation. One quirk of Type B thermocouples is that its output doesn't change between 0 and 42°C meaning that it is unsuitable for measuring temperatures near this range. We recommend Type B thermocouples are only used for measuring above 200°C.

Detailed Specifications

Specifications

Product Code	XE-RMT-STYLE
Sensor Type	Rare Metal Thermocouple Temperature Sensor to High Temperature
Max. Temperature	1700°C
Min. Temperature	0°C
Common Sensor Types	R, S, B
Common Sheath Size	6.0, 8.0, 10.0, 12.0, 13.0, 15.0, 17.0, 20.0, 25.0, 28.0 (mm)
Common Element Diameters	0.35mm, 0.45mm, 0.5mm
Head Options	ALA, KNE (IP65), BUZ
Shank Material	310SS, 466 SS & Inconel 600
Thermocouple Type R Continuous Temp Range	0 to 1600°C

Thermocouple Type R Short-Term Temp Range	-50 to 1700°C
Thermocouple Type R Material	Platinum/Rhodium (+ LEG) / Platinum (- LEG)
Thermocouple Type S Continuous Temp Range	0 to 1600°C
Thermocouple Type S Short-Term Temp Range	-50 to 1750°C
Thermocouple Type S Material	Platinum/Rhodium (+ LEG) / Platinum (- LEG)
Thermocouple Type R /S Tolerance Class 1	0 to 1100°C (+/- 1°C)
Thermocouple Type R /S Class 2 Tolerance	0 to 600°C (+/- 1.5°C)
Thermocouple Type B Continuous Temp Range	200 to 1700°C
Thermocouple Type B Short-Term Temp Range	0 to 1850°C
Thermocouple Type B Material	Platinum / Rhodium
Thermocouple Type B Tolerance Class 1	none available
Thermocouple Type B Class 2 Tolerance	600 to 1700°C (+/- 0.0025°C)